

Title (en)
Semiconductor module structure incorporating antenna

Title (de)
Halbleitermodulstruktur mit Antenne

Title (fr)
Structure d'un module semi-conducteur avec une antenne

Publication
EP 1372215 A2 20031217 (EN)

Application
EP 03291348 A 20030605

Priority
JP 2002173067 A 20020613

Abstract (en)
It is a task to reduce the length of an antenna by improving material of a module structure composing an antenna 3. A ferroelectric layer (2) is formed on the silicon board (1) and the antenna (3), composed of a conductor film, is formed on the ferroelectric layer (2). Through-holes (9) are formed on the silicon board (1). Electronic elements such as a capacitor (7), a SAW filter (8) and an inductance (6) are incorporated onto the silicon board (1) so as to compose a module structure. <IMAGE>

IPC 1-7
H01Q 1/38; **H01Q 9/04**; **H01Q 23/00**

IPC 8 full level
H01L 25/18 (2006.01); **H01L 23/52** (2006.01); **H01L 25/04** (2006.01); **H01Q 1/38** (2006.01); **H01Q 9/04** (2006.01); **H01Q 23/00** (2006.01); **H05K 1/03** (2006.01); **H05K 1/16** (2006.01)

CPC (source: EP KR US)
H01L 27/04 (2013.01 - KR); **H01Q 1/38** (2013.01 - EP US); **H01Q 9/0407** (2013.01 - EP US); **H01Q 9/0421** (2013.01 - EP US); **H01Q 23/00** (2013.01 - EP US); **H01L 2223/6677** (2013.01 - EP US); **H01L 2224/05568** (2013.01 - EP US); **H01L 2224/05573** (2013.01 - EP US); **H01L 2224/16225** (2013.01 - EP US); **H05K 1/0306** (2013.01 - EP US); **H05K 1/16** (2013.01 - EP US)

Designated contracting state (EPC)
FR

DOCDB simple family (publication)
EP 1372215 A2 20031217; **EP 1372215 A3 20040407**; CN 1479407 A 20040303; JP 2004022667 A 20040122; JP 4010881 B2 20071121; KR 20030096055 A 20031224; TW 200403885 A 20040301; US 2003230797 A1 20031218

DOCDB simple family (application)
EP 03291348 A 20030605; CN 03141317 A 20030610; JP 2002173067 A 20020613; KR 20030037879 A 20030612; TW 92115828 A 20030611; US 44821903 A 20030530